



Restoration Effectiveness In Lonely Gulch Creek



Lonely Gulch Creek is a west shore tributary of Lake Tahoe. Contributing watershed area above the project is approximately 3mi². It is a high gradient forested stream bordered by a narrow willow-alder dominated riparian corridor. Common stream bed forms are step pools, high gradient riffles, and cascades. These types of channel are characteristically stable; however this pre project 2002 photo shows the combined effects of an unnaturally dense forested channel banks destabilized by the record January 1997 flood, which choked the small channel rendering this 400-foot section of stream prone to erosion.

Restoration completed in 2003 was designed to stabilize the creek. The goal of site stabilization was to provide the structural foundation that promotes water flow and sedimentation patterns that allow the stream finish off restoration on its own.

Treatments involved stream bank reshaping, strategic placement of stream bed and bank protection logs and boulders collected on-site, and planting willow and alder shrubs to initiate riparian vegetation recovery



Lonely Gulch Creek Pre Project 2002



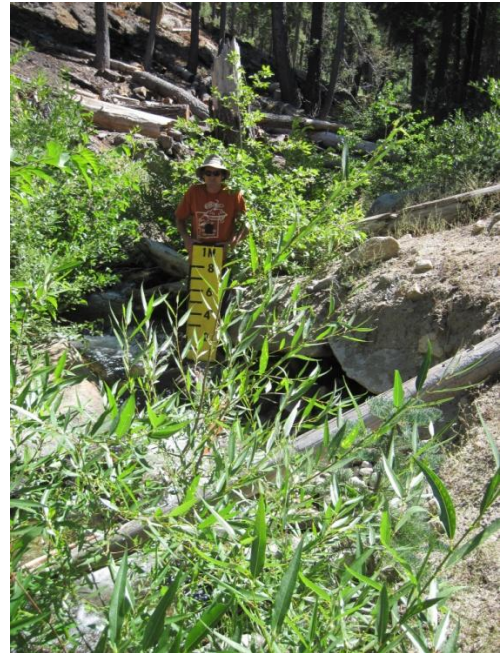
Lonely Gulch Creek Post Project 2004

The project was monitored in 2004 and 2006. Results showed that site had stabilized (cross section monitoring indicated no excessive erosion), riparian plants were surviving and natural re-colonization had begun, and the stream bed and banks were recovering to a normal condition. Macro invertebrate populations were monitored and the bug population rated out as good compared with other Tahoe Basin streams.



Post Project 2006

Photos in 2011 compared with photos taken in 2006 show that throughout this reach all important ecosystems attributes such as riparian plant cover, variable channel shape, and large wood function, appear to be on positive trajectory at this time.



Post Project 2011

More information on this project can be found in the full restoration monitoring report and briefing, posted on the LTBMU website: <http://www.fs.usda.gov/main/lbmu/maps-pubs> (Lonely Gulch Restoration Project Monitoring Report, 2008 & Lonely Gulch Restoration Monitoring Update, 2013).